

1. (Currently Amended) A method of welding comprising:
positioning a monomer sealant which is at least partially cured without substantial damage by temperatures produced during friction stir welding between surfaces to be welded together; and friction stir welding at least portions of the surfaces through the monomer to form a welded joint and together to cure form the a sealant there adjacent the welded joint between the surfaces by at least partially curing the monomer.

2-3. (Canceled)

4. (Currently Amended) The invention of claim 3claims 1 or 28 wherein positioning the monomer further comprises:

partially curing the monomer sealant before welding the first and second surfaces together.

5. (Currently Amended) The invention of claim 4 wherein welding the surfaces further comprises:

completing the curing of the monomer sealant.

6. (Currently Amended) The invention of claim 3claims 1 or 28 wherein positioning the monomer further comprises:

applying an adhesive monomer to the surfaces to be welded.

7. (Canceled)

8. (Currently Amended) The invention of claim 3claims 1 or 28 wherein positioning the monomer further comprises:

applying an adhesive monomer to the surfaces to be welded, and
partially curing the monomer sealant before welding the surfaces together.

9. (Currently Amended) The invention of claim 3claims 1 or 28 wherein welding to cure the monomer the surfaces together further comprises:

~~forming a sealant layer between at least portions of surfaces being welded by polymerizing the monomer.~~

10. (Canceled)

11. (Currently Amended) The invention of ~~claim 3-claims 1 or 28~~ further comprising: applying heat to ~~the first and second joint elements~~ to cure the monomer sealant.

12. (Currently Amended) The invention of claim 11 wherein applying heat further comprises: applying laser energy to ~~the surfaces to be welded to cure the sealant~~.

13. (Currently Amended) The invention of ~~claim 3-claims 1 or 28~~ wherein the welding further comprises produces:

forming a lap joint or filleting.

14. (Currently Amended) The invention of ~~claim 3-claims 1 or 28~~ wherein positioning a monomer sealant further comprises:

applying an elastomeric sealant monomer.

15. (Currently Amended) The invention of claim 14 wherein positioning a monomer further comprises:

applying a fluoroelastomeric sealant monomer.

16-27. (Canceled)

28. (New) The invention of claim 1 further comprising:

selecting a monomer through which a welded joint can be formed by friction stir welding without substantial degradation of the welded joint.

Respectfully Submitted,

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